



Safety Data Sheet according to (EC) No 1907/2006 as amended

Page 1 of 1

LOCTITE EA 3423 DC50ML EN

SDS No. : 178260
V009.0

Revision: 12.08.2024

printing date: 14.08.2024

Replaces version from: 04.09.2023

Kit/Multi-component Product

1. SDS No.204375 - LOCTITE EA 3423 A
2. SDS No.653493 - LOCTITE EA 3423 B



Safety Data Sheet according to (EC) No 1907/2006 as amended

Page 1 of 27

LOCTITE EA 3423 A

SDS No. : 204375
V009.0

Revision: 12.08.2024

printing date: 14.08.2024

Replaces version from: 09.08.2024

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

LOCTITE EA 3423 A

UFI: 7URT-3W7Y-S20R-F1X3

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use:

Epoxy adhesive

1.3. Details of the supplier of the safety data sheet

Henkel Ltd

Adhesives

Wood Lane End

HP2 4RQ Hemel Hempstead

Great Britain

Phone: +44 (1442) 278000

SDSinfo.Adhesive@henkel.com

For Safety Data Sheet updates please visit our website www.mysds.henkel.com or www.henkel-adhesives.com.

1.4. Emergency telephone number

24 Hours Emergency Tel: +44 (0)1442 278497

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):

Skin irritation

Category 2

H315 Causes skin irritation.

Serious eye irritation

Category 2

H319 Causes serious eye irritation.

Skin sensitizer

Category 1

H317 May cause an allergic skin reaction.

Chronic hazards to the aquatic environment

Category 2

H411 Toxic to aquatic life with long lasting effects.

2.2. Label elements

Label elements (CLP):

Hazard pictogram:



Contains

2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane

Bisphenol-F epichlorohydrin resin; MW<700
Castor oil, polymer with bisphenol A and epichlorohydrin
Bisphenol A diglycidyl ether polymer
p-tert-Butylphenyl 1-(2,3-epoxy)propyl ether
oxirane, mono[(C12-14-alkyloxy)methyl] derivs.
RP Bisphenol F-epichlorohydrin resin, MW<=700

Signal word:	Warning
Hazard statement:	H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H411 Toxic to aquatic life with long lasting effects.
Precautionary statement:	P273 Avoid release to the environment.
Prevention	P280 Wear protective gloves.
Precautionary statement:	P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
Response	P302+P352 IF ON SKIN: Wash with plenty of soap and water. P337+P313 If eye irritation persists: Get medical advice/attention.

2.3. Other hazards

None if used properly.

Following substances are present in a concentration \geq the concentration limit for depiction in Section 3 and fulfill the criteria for PBT/vPvB, or were identified as endocrine disruptor (ED):

This mixture does not contain any substances in a concentration \geq the concentration limit for depiction in Section 3 that are assessed to be a PBT, vPvB or ED.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Declaration of the ingredients according to CLP (EC) No 1272/2008:

Hazardous components CAS-No. EC Number REACH-Reg No.	Concentration	Classification	Specific Conc. Limits, M-factors and ATEs	Add. Information
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane 1675-54-3 01-2119456619-26	10- 20 %	Eye Irrit. 2, H319 Aquatic Chronic 2, H411 Skin Sens. 1, H317 Skin Irrit. 2, H315	Eye Irrit. 2; H319; C >= 5 % Skin Irrit. 2; H315; C >= 5 %	
Bisphenol-F epichlorohydrin resin; MW<700 ----- 01-2119454392-40	10- 20 %	Skin Irrit. 2, H315 Skin Sens. 1A, H317 Aquatic Chronic 2, H411		
Castor oil, polymer with bisphenol A and epichlorohydrin 68513-59-7	10- 20 %	Eye Irrit. 2, H319 Skin Irrit. 2, H315 Skin Sens. 1, H317		
Silica, surface treated with Hexamethyldisilazane - Nano 7631-86-9 231-545-4 01-2119379499-16	5- < 10 %	STOT RE 2, Inhalation, H373	dermal:ATE = > 5,000 mg/kg oral:ATE = > 5,000 mg/kg inhalation:ATE = > 5,01 mg/l;dust/mist	
Bisphenol A diglycidyl ether polymer 25085-99-8	1- < 5 %	Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Chronic 2, H411 Eye Irrit. 2, H319		
p-tert-Butylphenyl 1-(2,3-epoxy)propyl ether 3101-60-8 221-453-2 01-2119959496-20	1- < 5 %	Skin Sens. 1A, H317 Aquatic Chronic 2, H411	oral:ATE = 2.500 mg/kg	
oxirane, mono[(C12-14-alkyloxy)methyl] derivs. 68609-97-2 271-846-8 01-2119485289-22	1- < 5 %	Skin Irrit. 2, H315 Skin Sens. 1, H317		
RP Bisphenol F-epichlorohydrin resin, MW<=700 28064-14-4	0,1- < 1 %	Skin Irrit. 2, H315 Skin Sens. 1A, H317 Eye Irrit. 2, H319 Aquatic Chronic 2, H411	Skin Irrit. 2; H315; C >= 5 % Eye Irrit. 2; H319; C >= 5 %	

If no ATE values are displayed, please refer to LD/LC50 values in Section 11.

For full text of the H - statements and other abbreviations see section 16 "Other information".

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:

Move to fresh air. If symptoms persist, seek medical advice.

Skin contact:

Rinse with running water and soap.

Obtain medical attention if irritation persists.

Eye contact:

Rinse immediately with plenty of running water (for 10 minutes), seek medical attention from a specialist.

Ingestion:

Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

4.2. Most important symptoms and effects, both acute and delayed

SKIN: Redness, inflammation.

SKIN: Rash, Urticaria.

EYE: Irritation, conjunctivitis.

4.3. Indication of any immediate medical attention and special treatment needed

See section: Description of first aid measures

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media:**

water, carbon dioxide, foam, powder

Extinguishing media which must not be used for safety reasons:

High pressure waterjet

5.2. Special hazards arising from the substance or mixture

In the event of a fire, carbon monoxide (CO), carbon dioxide (CO₂) and nitrogen oxides (NO_x) can be released.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

Additional information:

In case of fire, keep containers cool with water spray.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Avoid contact with skin and eyes.

Wear protective equipment.

Ensure adequate ventilation.

6.2. Environmental precautions

Do not empty into drains / surface water / ground water.

6.3. Methods and material for containment and cleaning up

Dispose of contaminated material as waste according to Section 13.

For small spills wipe up with paper towel and place in container for disposal.

For large spills absorb onto inert absorbent material and place in sealed container for disposal.

6.4. Reference to other sections

See advice in section 8

SECTION 7: Handling and storage**7.1. Precautions for safe handling**

Avoid skin and eye contact.

See advice in section 8

Hygiene measures:

Wash hands before work breaks and after finishing work.

Do not eat, drink or smoke while working.

Good industrial hygiene practices should be observed.

7.2. Conditions for safe storage, including any incompatibilities

Store in a cool, well-ventilated place.

Refer to Technical Data Sheet.

7.3. Specific end use(s)

Epoxy adhesive

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for
Great Britain

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
Mica 12001-26-2 [MICA, RESPIRABLE]		0,8	Time Weighted Average (TWA):		EH40 WEL
Mica 12001-26-2 [MICA, TOTAL INHALABLE]		10	Time Weighted Average (TWA):		EH40 WEL

Occupational Exposure Limits

Valid for
Ireland

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
Aluminium 7429-90-5 [ALUMINIUM METAL]		1	Time Weighted Average (TWA):		IR_OEL
Mica 12001-26-2 [MICA (RESPIRABLE FRACTION)]		3	Time Weighted Average (TWA):		IR_OEL
Mica 12001-26-2 [MICA]		3	Time Weighted Average (TWA):		IR_OEL

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, number average molecular weight ≤ 700 1675-54-3	aqua (freshwater)		0,006 mg/l				
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, number average molecular weight ≤ 700 1675-54-3	Freshwater - intermittent		0,018 mg/l				
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, number average molecular weight ≤ 700 1675-54-3	aqua (marine water)		0,001 mg/l				
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, number average molecular weight ≤ 700 1675-54-3	Marine water - intermittent		0,002 mg/l				
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, number average molecular weight ≤ 700 1675-54-3	sewage treatment plant (STP)		10 mg/l				
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, number average molecular weight ≤ 700 1675-54-3	sediment (freshwater)				0,341 mg/kg		
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, number average molecular weight ≤ 700 1675-54-3	sediment (marine water)				0,034 mg/kg		
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, number average molecular weight ≤ 700 1675-54-3	Soil				0,065 mg/kg		
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, number average molecular weight ≤ 700 1675-54-3	oral				11 mg/kg		
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, number average molecular weight ≤ 700 1675-54-3	Air						no hazard identified
Reaction product: bisphenol-F- (epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) -----	aqua (freshwater)		0,003 mg/l				
Reaction product: bisphenol-F- (epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) -----	aqua (marine water)		0,0003 mg/l				
Reaction product: bisphenol-F- (epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) -----	sewage treatment plant (STP)		10 mg/l				
Reaction product: bisphenol-F- (epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) -----	sediment (freshwater)				0,294 mg/kg		
Reaction product: bisphenol-F- (epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) -----	sediment (marine water)				0,0294 mg/kg		
Reaction product: bisphenol-F- (epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) -----	Soil				0,237		

(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) -----					mg/kg		
Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) -----	aqua (intermittent releases)		0,0254 mg/l				
Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) -----	Air						no hazard identified
Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) -----	Predator						no potential for bioaccumulation
p-tert-Butylphenyl 1-(2,3-epoxy)propyl ether 3101-60-8	aqua (freshwater)		0,0075 mg/l				
p-tert-Butylphenyl 1-(2,3-epoxy)propyl ether 3101-60-8	aqua (marine water)		0,00075 mg/l				
p-tert-Butylphenyl 1-(2,3-epoxy)propyl ether 3101-60-8	sewage treatment plant (STP)		100 mg/l				
p-tert-Butylphenyl 1-(2,3-epoxy)propyl ether 3101-60-8	sediment (freshwater)				33,54 mg/kg		
p-tert-Butylphenyl 1-(2,3-epoxy)propyl ether 3101-60-8	sediment (marine water)				3,354 mg/kg		
p-tert-Butylphenyl 1-(2,3-epoxy)propyl ether 3101-60-8	Soil				11,4 mg/kg		
p-tert-Butylphenyl 1-(2,3-epoxy)propyl ether 3101-60-8	aqua (intermittent releases)		0,075 mg/l				
Oxirane, mono[(C12-14-alkyloxy)methyl] derivs. 68609-97-2	aqua (freshwater)		0,106 mg/l				
Oxirane, mono[(C12-14-alkyloxy)methyl] derivs. 68609-97-2	aqua (marine water)		0,011 mg/l				
Oxirane, mono[(C12-14-alkyloxy)methyl] derivs. 68609-97-2	Freshwater - intermittent		0,072 mg/l				
Oxirane, mono[(C12-14-alkyloxy)methyl] derivs. 68609-97-2	sewage treatment plant (STP)		10 mg/l				
Oxirane, mono[(C12-14-alkyloxy)methyl] derivs. 68609-97-2	sediment (freshwater)				307,16 mg/kg		
Oxirane, mono[(C12-14-alkyloxy)methyl] derivs. 68609-97-2	sediment (marine water)				30,72 mg/kg		
Oxirane, mono[(C12-14-alkyloxy)methyl] derivs. 68609-97-2	Soil				1,234 mg/kg		
Oxirane, mono[(C12-14-alkyloxy)methyl] derivs. 68609-97-2	Predator						no potential for bioaccumulation

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, number average molecular weight ≤ 700 1675-54-3	Workers	inhalation	Long term exposure - systemic effects		4,93 mg/m ³	no hazard identified
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, number average molecular weight ≤ 700 1675-54-3	Workers	dermal	Long term exposure - systemic effects		0,75 mg/kg	no hazard identified
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, number average molecular weight ≤ 700 1675-54-3	General population	inhalation	Long term exposure - systemic effects		0,87 mg/m ³	no hazard identified
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, number average molecular weight ≤ 700 1675-54-3	General population	dermal	Long term exposure - systemic effects		0,0893 mg/kg	no hazard identified
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, number average molecular weight ≤ 700 1675-54-3	General population	oral	Long term exposure - systemic effects		0,5 mg/kg	no hazard identified
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, number average molecular weight ≤ 700 1675-54-3	Workers	inhalation	Long term exposure - local effects			no hazard identified
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, number average molecular weight ≤ 700 1675-54-3	Workers	inhalation	Acute/short term exposure - local effects			no hazard identified
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, number average molecular weight ≤ 700 1675-54-3	Workers	dermal	Long term exposure - local effects			no hazard identified
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, number average molecular weight ≤ 700 1675-54-3	Workers	dermal	Acute/short term exposure - local effects			no hazard identified
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, number average molecular weight ≤ 700 1675-54-3	General population	inhalation	Long term exposure - local effects			no hazard identified
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, number average molecular weight ≤ 700 1675-54-3	General population	inhalation	Acute/short term exposure - local effects			no hazard identified
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, number average molecular weight ≤ 700 1675-54-3	General population	dermal	Long term exposure - local effects			no hazard identified
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, number average molecular weight ≤ 700 1675-54-3	General population	dermal	Acute/short term exposure - local effects			no hazard identified
Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) -----	Workers	Inhalation	Long term exposure - systemic effects		29,39 mg/m ³	no hazard identified
Reaction product: bisphenol-F-(epichlorhydrin); epoxy resin (number average molecular weight ≤ 700)	Workers	dermal	Long term exposure - systemic effects		104,15 mg/kg	no hazard identified

----- Reaction product: bisphenol-F- (epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) -----	Workers	dermal	Acute/short term exposure - local effects		0,0083 mg/cm2	no hazard identified
Reaction product: bisphenol-F- (epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) -----	General population	Inhalation	Long term exposure - systemic effects		8,7 mg/m3	no hazard identified
Reaction product: bisphenol-F- (epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) -----	General population	dermal	Long term exposure - systemic effects		62,5 mg/kg	no hazard identified
Reaction product: bisphenol-F- (epichlorhydrin); epoxy resin (number average molecular weight ≤ 700) -----	General population	oral	Long term exposure - systemic effects		6,25 mg/kg	no hazard identified
Silanamine, 1,1,1-trimethyl-N- (trimethylsilyl)-, hydrolysis products with silica 7631-86-9	Workers	inhalation	Long term exposure - systemic effects			
Silanamine, 1,1,1-trimethyl-N- (trimethylsilyl)-, hydrolysis products with silica 7631-86-9	Workers	inhalation	Long term exposure - local effects			
Silanamine, 1,1,1-trimethyl-N- (trimethylsilyl)-, hydrolysis products with silica 7631-86-9	Workers	inhalation	Acute/short term exposure - systemic effects			
Silanamine, 1,1,1-trimethyl-N- (trimethylsilyl)-, hydrolysis products with silica 7631-86-9	Workers	inhalation	Acute/short term exposure - local effects			
Silanamine, 1,1,1-trimethyl-N- (trimethylsilyl)-, hydrolysis products with silica 7631-86-9	Workers	dermal	Long term exposure - systemic effects			
Silanamine, 1,1,1-trimethyl-N- (trimethylsilyl)-, hydrolysis products with silica 7631-86-9	Workers	dermal	Acute/short term exposure - systemic effects			
Silanamine, 1,1,1-trimethyl-N- (trimethylsilyl)-, hydrolysis products with silica 7631-86-9	Workers	dermal	Long term exposure - local effects			
Silanamine, 1,1,1-trimethyl-N- (trimethylsilyl)-, hydrolysis products with silica 7631-86-9	Workers	dermal	Acute/short term exposure - local effects			
Silanamine, 1,1,1-trimethyl-N- (trimethylsilyl)-, hydrolysis products with silica 7631-86-9	General population	inhalation	Long term exposure - systemic effects			
Silanamine, 1,1,1-trimethyl-N- (trimethylsilyl)-, hydrolysis products with silica 7631-86-9	General population	inhalation	Acute/short term exposure - systemic effects			
Silanamine, 1,1,1-trimethyl-N- (trimethylsilyl)-, hydrolysis products with silica 7631-86-9	General population	inhalation	Long term exposure - local effects			
Silanamine, 1,1,1-trimethyl-N- (trimethylsilyl)-, hydrolysis products with silica 7631-86-9	General population	inhalation	Acute/short term exposure - local effects			
Silanamine, 1,1,1-trimethyl-N- (trimethylsilyl)-, hydrolysis products with silica 7631-86-9	General population	dermal	Long term exposure - systemic effects			
Silanamine, 1,1,1-trimethyl-N- (trimethylsilyl)-, hydrolysis products with silica 7631-86-9	General population	dermal	Acute/short term exposure - systemic effects			
Silanamine, 1,1,1-trimethyl-N- (trimethylsilyl)-, hydrolysis products with silica 7631-86-9	General population	dermal	Long term exposure - local effects			

Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica 7631-86-9	General population	dermal	Acute/short term exposure - local effects			
Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica 7631-86-9	General population	oral	Long term exposure - systemic effects			
Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products with silica 7631-86-9	General population	oral	Acute/short term exposure - systemic effects			
p-tert-Butylphenyl 1-(2,3-epoxy)propyl ether 3101-60-8	Workers	inhalation	Long term exposure - systemic effects		19,6 mg/m3	
p-tert-Butylphenyl 1-(2,3-epoxy)propyl ether 3101-60-8	Workers	inhalation	Acute/short term exposure - systemic effects		19,6 mg/m3	
p-tert-Butylphenyl 1-(2,3-epoxy)propyl ether 3101-60-8	Workers	inhalation	Acute/short term exposure - local effects		19,6 mg/m3	
p-tert-Butylphenyl 1-(2,3-epoxy)propyl ether 3101-60-8	Workers	inhalation	Long term exposure - local effects		19,6 mg/m3	
p-tert-Butylphenyl 1-(2,3-epoxy)propyl ether 3101-60-8	Workers	dermal	Long term exposure - systemic effects		5,6 mg/kg	
p-tert-Butylphenyl 1-(2,3-epoxy)propyl ether 3101-60-8	Workers	dermal	Acute/short term exposure - systemic effects		5,6 mg/kg	
p-tert-Butylphenyl 1-(2,3-epoxy)propyl ether 3101-60-8	Workers	dermal	Long term exposure - local effects		0,0016 mg/cm2 1,6 µg/cm2/day	
p-tert-Butylphenyl 1-(2,3-epoxy)propyl ether 3101-60-8	Workers	dermal	Acute/short term exposure - local effects		0,0016 mg/cm2 1,6 µg/cm2/day	
p-tert-Butylphenyl 1-(2,3-epoxy)propyl ether 3101-60-8	General population	inhalation	Long term exposure - systemic effects		11,7 mg/m3	
p-tert-Butylphenyl 1-(2,3-epoxy)propyl ether 3101-60-8	General population	inhalation	Long term exposure - local effects		11,7 mg/m3	
p-tert-Butylphenyl 1-(2,3-epoxy)propyl ether 3101-60-8	General population	dermal	Long term exposure - systemic effects		3,3 mg/kg	
p-tert-Butylphenyl 1-(2,3-epoxy)propyl ether 3101-60-8	General population	dermal	Acute/short term exposure - systemic effects		3,3 mg/kg	
p-tert-Butylphenyl 1-(2,3-epoxy)propyl ether 3101-60-8	General population	dermal	Long term exposure - local effects		0,00095 mg/cm2 0,95 µg/cm2/day	
p-tert-Butylphenyl 1-(2,3-epoxy)propyl ether 3101-60-8	General population	dermal	Acute/short term exposure - local effects		0,00095 mg/cm2 0,95 µg/cm2/day	
Oxirane, mono[(C12-14-alkyloxy)methyl] derivs. 68609-97-2	Workers	inhalation	Long term exposure - systemic effects		0,49 mg/m3	no potential for bioaccumulation
Oxirane, mono[(C12-14-alkyloxy)methyl] derivs. 68609-97-2	Workers	inhalation	Acute/short term exposure - systemic effects			no potential for bioaccumulation
Oxirane, mono[(C12-14-alkyloxy)methyl] derivs. 68609-97-2	Workers	inhalation	Long term exposure - local effects			no potential for bioaccumulation
Oxirane, mono[(C12-14-alkyloxy)methyl] derivs. 68609-97-2	Workers	inhalation	Acute/short term exposure - local effects			no potential for bioaccumulation
Oxirane, mono[(C12-14-alkyloxy)methyl] derivs. 68609-97-2	Workers	dermal	Long term exposure - systemic effects		0,75 mg/kg	no potential for bioaccumulation
Oxirane, mono[(C12-14-alkyloxy)methyl] derivs. 68609-97-2	Workers	dermal	Acute/short term exposure - systemic effects			no potential for bioaccumulation
Oxirane, mono[(C12-14-alkyloxy)methyl] derivs. 68609-97-2	Workers	dermal	Long term exposure - local effects			no potential for bioaccumulation
Oxirane, mono[(C12-14-alkyloxy)methyl] derivs. 68609-97-2	Workers	dermal	Acute/short term exposure - local effects			no potential for bioaccumulation

68609-97-2			effects			
Oxirane, mono[(C12-14-alkyloxy)methyl] derivs. 68609-97-2	General population	inhalation	Long term exposure - systemic effects		0,087 mg/m3	no potential for bioaccumulation
Oxirane, mono[(C12-14-alkyloxy)methyl] derivs. 68609-97-2	General population	inhalation	Acute/short term exposure - systemic effects			no potential for bioaccumulation
Oxirane, mono[(C12-14-alkyloxy)methyl] derivs. 68609-97-2	General population	inhalation	Long term exposure - local effects			no potential for bioaccumulation
Oxirane, mono[(C12-14-alkyloxy)methyl] derivs. 68609-97-2	General population	inhalation	Acute/short term exposure - local effects			no potential for bioaccumulation
Oxirane, mono[(C12-14-alkyloxy)methyl] derivs. 68609-97-2	General population	dermal	Long term exposure - systemic effects		0,089 mg/kg	no potential for bioaccumulation
Oxirane, mono[(C12-14-alkyloxy)methyl] derivs. 68609-97-2	General population	dermal	Acute/short term exposure - systemic effects			no potential for bioaccumulation
Oxirane, mono[(C12-14-alkyloxy)methyl] derivs. 68609-97-2	General population	dermal	Long term exposure - local effects			no potential for bioaccumulation
Oxirane, mono[(C12-14-alkyloxy)methyl] derivs. 68609-97-2	General population	dermal	Acute/short term exposure - local effects			no potential for bioaccumulation
Oxirane, mono[(C12-14-alkyloxy)methyl] derivs. 68609-97-2	General population	oral	Long term exposure - systemic effects		0,05 mg/kg	no potential for bioaccumulation
Oxirane, mono[(C12-14-alkyloxy)methyl] derivs. 68609-97-2	General population	oral	Acute/short term exposure - systemic effects			no potential for bioaccumulation

Biological Exposure Indices:

None

8.2. Exposure controls:

Engineering controls:

Ensure good ventilation/extraction.

Respiratory protection:

Ensure adequate ventilation.

An approved mask or respirator fitted with an organic vapour cartridge should be worn if the product is used in a poorly ventilated area

Filter type: A (EN 14387)

Hand protection:

Chemical-resistant protective gloves (EN 374).

Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374):

nitrile rubber (NBR; ≥ 0.4 mm thickness)

Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374):

nitrile rubber (NBR; ≥ 0.4 mm thickness)

This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection:

Safety glasses with sideshields or chemical safety goggles should be worn if there is a risk of splashing.

Protective eye equipment should conform to EN166.

Skin protection:

Wear suitable protective clothing.

Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Advices to personal protection equipment:

The information provided on personal protective equipment is for guidance purposes only. A full risk assessment should be conducted prior to using this product to determine the appropriate personal protective equipment to suit local conditions. Personal protective equipment should conform to the relevant EN standard.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Delivery form	paste
Colour	grey
Odor	mild
Physical state	liquid
Melting point	Not applicable, Product is a liquid
Solidification temperature	< 5 °C (< 41 °F)
Initial boiling point	200 °C (392 °F)
Flammability	The product is not flammable.
Explosive limits	Not applicable, The product is not flammable.
Flash point	> 200 °C (> 392 °F)
Auto-ignition temperature	>= 300 °C (>= 572 °F)
Decomposition temperature	Not applicable, Substance/mixture is not self-reactive, no organic peroxide and does not decompose under foreseen conditions of use
pH	9,1
(25 °C (77 °F); Conc.: 10 % product; Solvent: Water)	
Viscosity (kinematic)	11.300 mm ² /s
(25 °C (77 °F);)	
Solubility (qualitative)	Insoluble
(20 °C (68 °F); Solvent: Water)	
Partition coefficient: n-octanol/water	Not applicable
Vapour pressure	Mixture
(21 °C (69.8 °F))	0,001 mbar
Density	1,36 g/cm ³ None
(25 °C (77 °F))	
Relative vapour density:	> 1
(20 °C)	
Particle characteristics	Not applicable
	Product is a liquid

9.2. Other information

Other information not applicable for this product

SECTION 10: Stability and reactivity

10.1. Reactivity

Reacts with strong oxidants.
Reaction with strong acids.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity

10.4. Conditions to avoid

Stable under normal conditions of storage and use.

10.5. Incompatible materials

See section reactivity.

10.6. Hazardous decomposition products

carbon oxides.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute oral toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Species	Method
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)] bisoxirane 1675-54-3	LD50	> 2.000 mg/kg	rat	OECD Guideline 420 (Acute Oral Toxicity)
Bisphenol-F epichlorhydrin resin; MW<700 -----	LD50	> 5.000 mg/kg	rat	equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity)
Silica, surface treated with Hexamethyldisilazane - Nano 7631-86-9	LD50	> 5.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
Silica, surface treated with Hexamethyldisilazane - Nano 7631-86-9	Acute toxicity estimate (ATE)	> 5.000 mg/kg		Expert judgement
Bisphenol A diglycidyl ether polymer 25085-99-8	LD50	> 2.000 mg/kg	rat	not specified
p-tert-Butylphenyl 1-(2,3- epoxy)propyl ether 3101-60-8	LD50	> 2.000 mg/kg	rat	OECD Guideline 425 (Acute Oral Toxicity: Up-and-Down Procedure)
p-tert-Butylphenyl 1-(2,3- epoxy)propyl ether 3101-60-8	Acute toxicity estimate (ATE)	2.500 mg/kg		Expert judgement
oxirane, mono[(C12-14- alkyloxy)methyl] derivs. 68609-97-2	LD50	26.800 mg/kg	rat	not specified
RP Bisphenol F- epichlorhydrin resin, MW<=700 28064-14-4	LD50	> 5.000 mg/kg	rat	equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity)

Acute dermal toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Species	Method
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)] bisoxirane 1675-54-3	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
Bisphenol-F epichlorohydrin resin; MW<700 -----	LD50	> 2.000 mg/kg	rat	equivalent or similar to OECD Guideline 402 (Acute Dermal Toxicity)
Silica, surface treated with Hexamethyldisilazane - Nano 7631-86-9	LD50	> 5.000 mg/kg	rabbit	not specified
Silica, surface treated with Hexamethyldisilazane - Nano 7631-86-9	Acute toxicity estimate (ATE)	> 5.000 mg/kg		Expert judgement
Bisphenol A diglycidyl ether polymer 25085-99-8	LD50	> 2.000 mg/kg	rabbit	not specified
p-tert-Butylphenyl 1-(2,3-epoxy)propyl ether 3101-60-8	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
oxirane, mono[(C12-14-alkyloxy)methyl] derivs. 68609-97-2	LD50	> 4.000 mg/kg	rabbit	not specified
RP Bisphenol F- epichlorohydrin resin, MW<=700 28064-14-4	LD50	> 2.000 mg/kg	rat	equivalent or similar to OECD Guideline 402 (Acute Dermal Toxicity)

Acute inhalative toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Test atmosphere	Exposure time	Species	Method
Silica, surface treated with Hexamethyldisilazane - Nano 7631-86-9	LC50	> 5,01 mg/l	dust/mist	4 h	rat	OECD Guideline 436 (Acute Inhalation Toxicity: Acute Toxic Class (ATC) Method)
Silica, surface treated with Hexamethyldisilazane - Nano 7631-86-9	Acute toxicity estimate (ATE)	> 5,01 mg/l	dust/mist			Expert judgement

Skin corrosion/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)] bisoxirane 1675-54-3	slightly irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Bisphenol-F epichlorhydrin resin; MW<700 -----	irritating	4 h	rabbit	equivalent or similar to OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Silica, surface treated with Hexamethyldisilazane - Nano 7631-86-9	not irritating		rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
p-tert-Butylphenyl 1-(2,3-epoxy)propyl ether 3101-60-8	not irritating	24 h	rat	other guideline:
oxirane, mono[(C12-14-alkyloxy)methyl] derivs. 68609-97-2	moderately irritating	24 h	rabbit	EPA OTS 798.4470 (Acute Dermal Irritation)
RP Bisphenol F- epichlorhydrin resin, MW<=700 28064-14-4	irritating	4 h	rabbit	equivalent or similar to OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)] bisoxirane 1675-54-3	slightly irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Bisphenol-F epichlorhydrin resin; MW<700 -----	not irritating		rabbit	equivalent or similar to OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Silica, surface treated with Hexamethyldisilazane - Nano 7631-86-9	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
p-tert-Butylphenyl 1-(2,3-epoxy)propyl ether 3101-60-8	not irritating	72 h	rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
oxirane, mono[(C12-14-alkyloxy)methyl] derivs. 68609-97-2	not irritating		rabbit	equivalent or similar to OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Test type	Species	Method
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)] bisoxirane 1675-54-3	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Bisphenol-F epichlorhydrin resin; MW<700 -----	Sub-Category 1A (sensitising)	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Silica, surface treated with Hexamethyldisilazane - Nano 7631-86-9	not sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
p-tert-Butylphenyl 1-(2,3-epoxy)propyl ether 3101-60-8	Sub-Category 1A (sensitising)	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
oxirane, mono[(C12-14-alkyloxy)methyl] derivs. 68609-97-2	sensitising	Buehler test	guinea pig	EPA OPPTS 870.2600 (Skin Sensitisation)
RP Bisphenol F-epichlorohydrin resin, MW<=700 28064-14-4	Sub-Category 1A (sensitising)	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)

Germ cell mutagenicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)] bisoxirane 1675-54-3	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 472 (Genetic Toxicology: Escherichia coli, Reverse Mutation Assay)
Bisphenol-F epichlorhydrin resin; MW<700 -----	positive	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Silica, surface treated with Hexamethyldisilazane - Nano 7631-86-9	negative	bacterial reverse mutation assay (e.g Ames test)			OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Silica, surface treated with Hexamethyldisilazane - Nano 7631-86-9	negative	in vitro mammalian chromosome aberration test			OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Silica, surface treated with Hexamethyldisilazane - Nano 7631-86-9	negative	mammalian cell gene mutation assay			OECD Guideline 490 (In Vitro Mammalian Cell Gene Mutation Tests Using the Thymidine Kinase Gene)
p-tert-Butylphenyl 1-(2,3-epoxy)propyl ether 3101-60-8	positive without metabolic activation	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
p-tert-Butylphenyl 1-(2,3-epoxy)propyl ether 3101-60-8	positive without metabolic activation	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
p-tert-Butylphenyl 1-(2,3-epoxy)propyl ether 3101-60-8	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
p-tert-Butylphenyl 1-(2,3-epoxy)propyl ether 3101-60-8	positive	sister chromatid exchange assay in mammalian cells	without		OECD Guideline 479 (Genetic Toxicology: In Vitro Sister Chromatid Exchange Assay in Mammalian Cells)
oxirane, mono[(C12-14-alkyloxy)methyl] derivs. 68609-97-2	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
oxirane, mono[(C12-14-alkyloxy)methyl] derivs. 68609-97-2	positive	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
RP Bisphenol F- epichlorhydrin resin, MW<=700 28064-14-4	positive	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)] bisoxirane 1675-54-3	negative	oral: gavage		mouse	not specified
Bisphenol-F epichlorhydrin resin; MW<700 -----	negative	oral: gavage		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Bisphenol-F epichlorhydrin resin; MW<700 -----	negative	oral: gavage		rat	OECD Guideline 486 (Unscheduled DNA Synthesis (UDS) Test with Mammalian Liver Cells in vivo)
Silica, surface treated with Hexamethyldisilazane - Nano 7631-86-9	negative	oral: gavage		rat	OECD Guideline 475 (Mammalian Bone Marrow Chromosome Aberration Test)
p-tert-Butylphenyl 1-(2,3-epoxy)propyl ether 3101-60-8	negative	oral: gavage		rat	OECD Guideline 489 (In Vivo Mammalian Alkaline Comet Assay)

p-tert-Butylphenyl 1-(2,3-epoxy)propyl ether 3101-60-8	negative	oral: gavage		rat	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
oxirane, mono[(C12-14-alkyloxy)methyl] derivs. 68609-97-2	negative	intraperitoneal		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
oxirane, mono[(C12-14-alkyloxy)methyl] derivs. 68609-97-2	negative	intraperitoneal		rat	equivalent or similar to OECD Guideline 475 (Mammalian Bone Marrow Chromosome Aberration Test)
oxirane, mono[(C12-14-alkyloxy)methyl] derivs. 68609-97-2	negative	oral: gavage		rat	OECD Guideline 488 (In Vivo Transgenic Cell Gene Mutation Assays)
RP Bisphenol F-epichlorohydrin resin, MW<=700 28064-14-4	negative	oral: gavage		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
RP Bisphenol F-epichlorohydrin resin, MW<=700 28064-14-4	negative	oral: gavage		rat	OECD Guideline 486 (Unscheduled DNA Synthesis (UDS) Test with Mammalian Liver Cells in vivo)

Carcinogenicity

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Sex	Method
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)] bisoxirane 1675-54-3	not carcinogenic	dermal	2 y daily	mouse	male	OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)] bisoxirane 1675-54-3	not carcinogenic	oral: gavage	2 y daily	rat	male/female	OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)

Reproductive toxicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Test type	Route of application	Species	Method
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)] bisoxirane 1675-54-3	NOAEL P >= 50 mg/kg NOAEL F1 >= 750 mg/kg NOAEL F2 >= 750 mg/kg	Two generation study	oral: gavage	rat	OECD Guideline 416 (Two-Generation Reproduction Toxicity Study)
Bisphenol-F epichlorohydrin resin; MW<700 -----	NOAEL P > 750 mg/kg NOAEL F1 750 mg/kg NOAEL F2 750 mg/kg	two-generation study	oral: gavage	rat	OECD Guideline 416 (Two-Generation Reproduction Toxicity Study)
RP Bisphenol F-epichlorohydrin resin, MW<=700 28064-14-4	NOAEL P > 750 mg/kg NOAEL F1 750 mg/kg NOAEL F2 750 mg/kg	two-generation study	oral: gavage	rat	OECD Guideline 416 (Two-Generation Reproduction Toxicity Study)

STOT-single exposure:

No data available.

STOT-repeated exposure:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Route of application	Exposure time / Frequency of treatment	Species	Method
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)] bisoxirane 1675-54-3	NOAEL 50 mg/kg	oral: gavage	14 w daily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Bisphenol-F epichlorohydrin resin; MW<700 -----	NOAEL 250 mg/kg	oral: gavage	13 w daily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Silica, surface treated with Hexamethyldisilazane - Nano 7631-86-9	NOAEL 491,5 mg/kg	oral: feed	6 months daily	rat	not specified
Silica, surface treated with Hexamethyldisilazane - Nano 7631-86-9	NOAEL 0,01 mg/kg	inhalation: dust	12 months 6 h/d, 5 d/wk	rat	not specified
Silica, surface treated with Hexamethyldisilazane - Nano 7631-86-9	NOAEL 0,01 mg/kg	inhalation: dust	12 months 6 h/d, 5 d/wk	monkey	not specified
p-tert-Butylphenyl 1-(2,3-epoxy)propyl ether 3101-60-8	NOAEL 100 mg/kg	oral: gavage	90 d daily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
oxirane, mono[(C12-14-alkyloxy)methyl] derivs. 68609-97-2	NOAEL >= 1 mg/kg	oral: gavage	13 w 5 d/w	rat	OECD Guideline 411 (Subchronic Dermal Toxicity: 90-Day Study)
RP Bisphenol F- epichlorohydrin resin, MW<=700 28064-14-4	NOAEL 250 mg/kg	oral: gavage	13 w daily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

Aspiration hazard:

No data available.

11.2 Information on other hazards

not applicable

SECTION 12: Ecological information

General ecological information:

Do not empty into drains / surface water / ground water.

12.1. Toxicity

Toxicity (Fish):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane 1675-54-3	LC50	1,75 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Bisphenol-F epichlorohydrin resin; MW<700 -----	LC50	5,7 mg/l	96 h	Leuciscus idus	OECD Guideline 203 (Fish, Acute Toxicity Test)
Silica, surface treated with Hexamethyldisilazane - Nano 7631-86-9	LC50	> 10.000 mg/l	96 h	Brachydanio rerio (new name: Danio rerio)	OECD Guideline 203 (Fish, Acute Toxicity Test)
Bisphenol A diglycidyl ether polymer 25085-99-8	LC50	2 mg/l	96 h	not specified	OECD Guideline 203 (Fish, Acute Toxicity Test)
p-tert-Butylphenyl 1-(2,3-epoxy)propyl ether 3101-60-8	LC50	7,5 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
oxirane, mono[(C12-14-alkyloxy)methyl] derivs. 68609-97-2	LL50	> 100 mg/l	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
RP Bisphenol F-epichlorohydrin resin, MW<=700 28064-14-4	LC50	5,7 mg/l	96 h	Ide, silver or golden orfe (Leuciscus idus)	OECD Guideline 203 (Fish, Acute Toxicity Test)

Toxicity (aquatic invertebrates):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane 1675-54-3	EC50	1,7 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Bisphenol-F epichlorohydrin resin; MW<700 -----	EC50	2,55 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Silica, surface treated with Hexamethyldisilazane - Nano 7631-86-9	EC50	> 1.000 mg/l	24 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Bisphenol A diglycidyl ether polymer 25085-99-8	EC50	2 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
p-tert-Butylphenyl 1-(2,3-epoxy)propyl ether 3101-60-8	EC50	67,9 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
oxirane, mono[(C12-14-alkyloxy)methyl] derivs. 68609-97-2	EL50	7,2 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
RP Bisphenol F-epichlorohydrin resin, MW<=700 28064-14-4	EC50	3,5 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

Chronic toxicity (aquatic invertebrates):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane 1675-54-3	NOEC	0,3 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
Bisphenol-F epichlorhydrin resin; MW<700 -----	NOEC	0,3 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
Silica, surface treated with Hexamethyldisilazane - Nano 7631-86-9	NOEC	132,7 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
Bisphenol A diglycidyl ether polymer 25085-99-8	NOEC	0,3 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
oxirane, mono[(C12-14-alkyloxy)methyl] derivs. 68609-97-2	NOELR	56 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
RP Bisphenol F-epichlorohydrin resin, MW<=700 28064-14-4	NOEC	0,3 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)

Toxicity (Algae):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
2,2'-(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane 1675-54-3	EC50	> 11 mg/l	72 h	Scenedesmus capricornutum	OECD Guideline 201 (Alga, Growth Inhibition Test)
2,2'-(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane 1675-54-3	NOEC	4,2 mg/l	72 h	Scenedesmus capricornutum	OECD Guideline 201 (Alga, Growth Inhibition Test)
Bisphenol-F epichlorhydrin resin; MW<700 -----	EC50	1,8 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Silica, surface treated with Hexamethyldisilazane - Nano 7631-86-9	EC50	> 173,1 mg/l	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
Silica, surface treated with Hexamethyldisilazane - Nano 7631-86-9	NOEC	173,1 mg/l	72 h	Desmodesmus subspicatus	OECD Guideline 201 (Alga, Growth Inhibition Test)
Bisphenol A diglycidyl ether polymer 25085-99-8	EC50	> 11 mg/l	72 h	not specified	OECD Guideline 201 (Alga, Growth Inhibition Test)
Bisphenol A diglycidyl ether polymer 25085-99-8	NOEC	4,2 mg/l	72 h	not specified	OECD Guideline 201 (Alga, Growth Inhibition Test)
p-tert-Butylphenyl 1-(2,3-epoxy)propyl ether 3101-60-8	EC50	9 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
RP Bisphenol F-epichlorohydrin resin, MW<=700 28064-14-4	EC50	9,4 mg/l	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)

Toxicity (microorganisms):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
2,2'-(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane 1675-54-3	IC50	> 100 mg/l	3 h	activated sludge, industrial	other guideline:
Bisphenol-F epichlorhydrin resin; MW<700 -----	IC50	> 100 mg/l	3 h	activated sludge, industrial	other guideline:
Silica, surface treated with Hexamethyldisilazane - Nano 7631-86-9	EC50	> 2.500 mg/l	3 h	activated sludge of a predominantly domestic sewage	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
p-tert-Butylphenyl 1-(2,3-epoxy)propyl ether 3101-60-8	EC50	> 1.000 mg/l	3 h	activated sludge of a predominantly domestic sewage	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
RP Bisphenol F-epichlorohydrin resin, MW<=700 28064-14-4	IC50	> 100 mg/l	3 h	activated sludge	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)

12.2. Persistence and degradability

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane 1675-54-3	not readily biodegradable.	aerobic	5 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
Bisphenol-F epichlorohydrin resin; MW<700 -----	not readily biodegradable.	aerobic	0 %	28 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Bisphenol A diglycidyl ether polymer 25085-99-8	not readily biodegradable.	aerobic	5 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
p-tert-Butylphenyl 1-(2,3-epoxy)propyl ether 3101-60-8	not readily biodegradable.	aerobic	1,1 %	28 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
oxirane, mono[(C12-14-alkyloxy)methyl] derivs. 68609-97-2	readily biodegradable	aerobic	87 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
RP Bisphenol F-epichlorohydrin resin, MW<=700 28064-14-4	not readily biodegradable.	aerobic	5 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)

12.3. Bioaccumulative potential

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Bioconcentration factor (BCF)	Exposure time	Temperature	Species	Method
RP Bisphenol F-epichlorohydrin resin, MW<=700 28064-14-4	31			not specified	not specified

12.4. Mobility in soil

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	LogPow	Temperature	Method
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane 1675-54-3	3,242	25 °C	EU Method A.8 (Partition Coefficient)
Bisphenol-F epichlorhydrin resin; MW<700 -----	2,7 - 3,6		OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
p-tert-Butylphenyl 1-(2,3-epoxy)propyl ether 3101-60-8	3,59	20 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
oxirane, mono[(C12-14-alkyloxy)methyl] derivs. 68609-97-2	3,77	20 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
RP Bisphenol F-epichlorhydrin resin, MW<=700 28064-14-4	3,242		OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)

12.5. Results of PBT and vPvB assessment

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	PBT / vPvB
2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bisoxirane 1675-54-3	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Bisphenol-F epichlorhydrin resin; MW<700 -----	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Silica, surface treated with Hexamethyldisilazane - Nano 7631-86-9	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
p-tert-Butylphenyl 1-(2,3-epoxy)propyl ether 3101-60-8	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
oxirane, mono[(C12-14-alkyloxy)methyl] derivs. 68609-97-2	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

12.6. Endocrine disrupting properties

not applicable

12.7. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:

Do not empty into drains / surface water / ground water.

Dispose of in accordance with local and national regulations.

Disposal of uncleaned packages:

After use, tubes, cartons and bottles containing residual product should be disposed of as chemically contaminated waste in an authorised legal land fill site or incinerated.

Waste code

08 04 09* waste adhesives and sealants containing organic solvents and other dangerous substances

The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.

SECTION 14: Transport information**14.1. UN number or ID number**

ADR	3082
RID	3082
ADN	3082
IMDG	3082
IATA	3082

14.2. UN proper shipping name

ADR	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy resin)
RID	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy resin)
ADN	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy resin)
IMDG	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Epoxy resin)
IATA	Environmentally hazardous substance, liquid, n.o.s. (Epoxy resin)

14.3. Transport hazard class(es)

ADR	9
RID	9
ADN	9
IMDG	9
IATA	9

14.4. Packing group

ADR	III
RID	III
ADN	III
IMDG	III
IATA	III

14.5. Environmental hazards

ADR	Environmentally Hazardous
RID	Environmentally Hazardous
ADN	Environmentally Hazardous
IMDG	Marine Pollutant
IATA	Environmentally Hazardous

14.6. Special precautions for user

ADR	not applicable
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	Tunnelcode:
RID	not applicable
ADN	not applicable
IMDG	not applicable
IATA	not applicable

The transport classifications in this section apply generally to packed and bulk goods alike. For containers with a net volume of no more than 5 L for liquid substances or a net mass of no more than 5 kg for solid substances per individual or inner package, the exemptions SP 375 (ADR), A197 (IATA), 2.10.2.7 (IMDG), NZ 4.3(10) may be applied, which can result in a deviation from the transport classification for packed goods.

14.7. Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Ozone Depleting Substance (ODS) (Regulation (EC) No 1005/2009):	Not applicable
Prior Informed Consent (PIC) (Regulation (EU) No 649/2012):	Not applicable
Persistent organic pollutants (Regulation (EU) 2019/1021):	Not applicable
VOC content (2010/75/EC)	< 3,00 %

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text of all abbreviations indicated by codes in this safety data sheet are as follows:

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

H411 Toxic to aquatic life with long lasting effects.

ED:	Substance identified as having endocrine disrupting properties
EU OEL:	Substance with a Union workplace exposure limit
EU EXPLD 1:	Substance listed in Annex I, Reg (EC) No. 2019/1148
EU EXPLD 2	Substance listed in Annex II, Reg (EC) No. 2019/1148
SVHC:	Substance of very high concern (REACH Candidate List)
PBT:	Substance fulfilling persistent, bioaccumulative and toxic criteria
PBT/vPvB:	Substance fulfilling persistent, bioaccumulative and toxic plus very persistent and very bioaccumulative criteria
vPvB:	Substance fulfilling very persistent and very bioaccumulative criteria

Further information:

This Safety Data Sheet has been produced for sales from Henkel to parties purchasing from Henkel, is based on Regulation (EC) No 1907/2006 and provides information in accordance with applicable regulations of the European Union only. In that respect, no statement, warranty or representation of any kind is given as to compliance with any statutory laws or regulations of any other jurisdiction or territory other than the European Union. When exporting to territories other than the European Union, please consult with the respective Safety Data Sheet of the concerned territory to ensure compliance or liaise with Henkel's Product Safety and Regulatory Affairs Department (SDSinfo.Adhesive@henkel.com) prior to export to other territories than the European Union.

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

Dear Customer,

Henkel is committed to creating a sustainable future by promoting opportunities along the entire value chain. If you would like to contribute by switching from a paper to the electronic version of SDS, please contact the local Customer Service representative. We recommend to use a non-personal email address (e.g. SDS@your_company.com).

Relevant changes in this safety data sheet are indicated by vertical lines at the left margin in the body of this document. Corresponding text is displayed in a different color on shadowed fields.



Safety Data Sheet according to (EC) No 1907/2006 as amended

SDS No. : 653493

V009.0

LOCTITE EA 3423 B

Revision: 12.08.2024

printing date: 14.08.2024

Replaces version from: 09.08.2024

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

LOCTITE EA 3423 B

UFI: GEW8-8W7D-120C-9S1H

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use:

2-Component epoxy adhesive

1.3. Details of the supplier of the safety data sheet

Henkel Ltd

Adhesives

Wood Lane End

HP2 4RQ Hemel Hempstead

Great Britain

Phone: +44 (1442) 278000

SDSinfo.Adhesive@henkel.com

For Safety Data Sheet updates please visit our website www.mysds.henkel.com or www.henkel-adhesives.com.

1.4. Emergency telephone number

24 Hours Emergency Tel: +44 (0)1442 278497

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):

Acute toxicity

Category 4

H332 Harmful if inhaled.

Route of Exposure: Inhalation

Skin corrosion

Sub-category 1B

H314 Causes severe skin burns and eye damage.

Serious eye damage

Category 1

H318 Causes serious eye damage.

Skin sensitizer

Category 1

H317 May cause an allergic skin reaction.

Toxic to reproduction

Category 1B

H360F May damage fertility.

Chronic hazards to the aquatic environment

Category 1

H410 Very toxic to aquatic life with long lasting effects.

2.2. Label elements

Label elements (CLP):

Hazard pictogram:**Contains**

Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine

Diethylenetriamine
4,4'-Isopropylidenediphenol

m-Phenylenebis(methylamine)

Amines, polyethylenepoly-, triethylenetetramine fraction

Phenol, styrenated

Signal word:

Danger

Hazard statement:

H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H332 Harmful if inhaled.
H360F May damage fertility.
H410 Very toxic to aquatic life with long lasting effects.

Supplemental information

Restricted to professional users.

**Precautionary statement:
Prevention**

P201 Obtain special instructions before use.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P261 Avoid breathing vapors.

**Precautionary statement:
Response**

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 IF exposed or concerned: Get medical advice/attention.
P310 Immediately call a POISON CENTER or doctor.

2.3. Other hazards

None if used properly.

Following substances are present in a concentration \geq the concentration limit for depiction in Section 3 and fulfill the criteria for PBT/vPvB, or were identified as endocrine disruptor (ED):

4,4'-Isopropylidenediphenol 80-05-7	ED
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SECTION 3: Composition/information on ingredients

3.2. Mixtures

Declaration of the ingredients according to CLP (EC) No 1272/2008:

Hazardous components CAS-No. EC Number REACH-Reg No.	Concentration	Classification	Specific Conc. Limits, M-factors and ATEs	Add. Information
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine 68082-29-1 500-191-5 01-2119972320-44	25- 50 %	Aquatic Chronic 2, H411 Eye Dam. 1, H318 Skin Irrit. 2, H315 Skin Sens. 1, H317		
Diethylenetriamine 111-40-0 203-865-4 01-2119473793-27	5- < 10 %	Acute Tox. 4, Oral, H302 Acute Tox. 4, Dermal, H312 Skin Corr. 1B, H314 Skin Sens. 1, H317 Acute Tox. 2, Inhalation, H330 STOT SE 3, H335 Eye Dam. 1, H318	inhalation:ATE = 0,071 mg/l;dust/mist	
4,4'-Isopropylidenediphenol 80-05-7 201-245-8 01-2119457856-23	1- < 3 %	Eye Dam. 1, H318 Skin Sens. 1, H317 STOT SE 3, H335 Repr. 1B, H360F Aquatic Acute 1, H400 Aquatic Chronic 1, H410	M acute = 1 M chronic = 10 ===== oral:ATE = 2.500 mg/kg	SVHC ED EU OEL
m-Phenylenebis(methylamine) 1477-55-0 216-032-5 01-2119480150-50	1- < 3 %	Acute Tox. 4, Oral, H302 Skin Corr. 1B, H314 Skin Sens. 1B, H317 Acute Tox. 4, Inhalation, H332 Aquatic Chronic 3, H412 Eye Dam. 1, H318		
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8 292-588-2 01-2119487919-13	1- < 3 %	Acute Tox. 4, Oral, H302 Acute Tox. 4, Dermal, H312 Skin Corr. 1B, H314 Skin Sens. 1, H317 Eye Dam. 1, H318 Aquatic Chronic 3, H412		
Phenol, styrenated 61788-44-1 262-975-0 01-2119979575-18 01-2119980970-27	1- < 5 %	Aquatic Chronic 2, H411 Skin Irrit. 2, H315 Skin Sens. 1A, H317		
p-toluenesulphonic acid (containing a maximum of 5 % H ₂ SO ₄) 104-15-4 203-180-0 01-2119538811-39	1- < 5 %	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Acute Tox. 4, Oral, H302	STOT SE 3; H335; C >= 20 %	

If no ATE values are displayed, please refer to LD/LC50 values in Section 11.

For full text of the H - statements and other abbreviations see section 16 "Other information".

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation:

Move to fresh air. If symptoms persist, seek medical advice.

Skin contact:

Rinse with running water and soap.

Obtain medical attention if irritation persists.

Eye contact:

Rinse immediately with plenty of running water (for 10 minutes), seek medical attention from a specialist.

Ingestion:

Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

4.2. Most important symptoms and effects, both acute and delayed

Causes burns.

RESPIRATORY: Irritation, coughing, shortness of breath, chest tightness.

SKIN: Rash, Urticaria.

4.3. Indication of any immediate medical attention and special treatment needed

See section: Description of first aid measures

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

water, carbon dioxide, foam, powder

Extinguishing media which must not be used for safety reasons:

High pressure waterjet

5.2. Special hazards arising from the substance or mixture

In the event of a fire, carbon monoxide (CO), carbon dioxide (CO₂) and nitrogen oxides (NO_x) can be released.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.

Additional information:

In case of fire, keep containers cool with water spray.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes.

Wear protective equipment.

Ensure adequate ventilation.

6.2. Environmental precautions

Do not empty into drains / surface water / ground water.

6.3. Methods and material for containment and cleaning up

Dispose of contaminated material as waste according to Section 13.

For small spills wipe up with paper towel and place in container for disposal.

For large spills absorb onto inert absorbent material and place in sealed container for disposal.

6.4. Reference to other sections

See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid skin and eye contact.

See advice in section 8

Hygiene measures:

- Wash hands before work breaks and after finishing work.
- Good industrial hygiene practices should be observed.
- Do not eat, drink or smoke while working.

7.2. Conditions for safe storage, including any incompatibilities

Store in a cool, well-ventilated place.
Refer to Technical Data Sheet.

7.3. Specific end use(s)

2-Component epoxy adhesive

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for
Great Britain

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
Ethene, homopolymer 9002-88-4 [DUST, INHALABLE DUST]		10	Time Weighted Average (TWA):		EH40 WEL
Ethene, homopolymer 9002-88-4 [DUST, RESPIRABLE DUST]		4	Time Weighted Average (TWA):		EH40 WEL
2,2'-Iminodi(ethylamine) 111-40-0 [2,2'-IMINODI(ETHYLAMINE)]			Skin designation:	Can be absorbed through the skin.	EH40 WEL
2,2'-Iminodi(ethylamine) 111-40-0 [2,2'-IMINODI(ETHYLAMINE)]	1	4,3	Time Weighted Average (TWA):		EH40 WEL
4,4'-Isopropylidenediphenol 80-05-7 [BISPHENOL A]		2	Time Weighted Average (TWA):		EH40 WEL
4,4'-Isopropylidenediphenol 80-05-7 [BISPHENOL A (4,4'-ISOPROPYLIDENEDIPHENOL) (INHALABLE FRACTION)]		2	Time Weighted Average (TWA):	Indicative	ECTLV
4,4'-Isopropylidenediphenol 80-05-7 [Bisphenol A; 4,4'-Isopropylidenediphenol]		2	Time Weighted Average (TWA):		EU OELIII

Occupational Exposure Limits

Valid for
Ireland

Ingredient [Regulated substance]	ppm	mg/m ³	Value type	Short term exposure limit category / Remarks	Regulatory list
Ethene, homopolymer 9002-88-4 [DUSTS NON-SPECIFIC]		10	Time Weighted Average (TWA):		IR_OEL
Ethene, homopolymer 9002-88-4 [DUSTS NON-SPECIFIC]		4	Time Weighted Average (TWA):		IR_OEL
2,2'-Iminodi(ethylamine) 111-40-0 [DIETHYLENE TRIAMINE]	1	4	Time Weighted Average (TWA):		IR_OEL
2,2'-Iminodi(ethylamine) 111-40-0 [DIETHYLENE TRIAMINE]			Skin designation:	Can be absorbed through the skin.	IR_OEL
4,4'-Isopropylidenediphenol 80-05-7 [BISPHENOL A (4,4'-ISOPROPYLIDENEDIPHENOL) (INHALABLE FRACTION)]		2	Time Weighted Average (TWA):	Indicative	ECTLV
4,4'-Isopropylidenediphenol 80-05-7 [BISPHENOL A (4,4'-ISOPROPYLIDENEDIPHENOL)]		2	Time Weighted Average (TWA):	Indicative OELV	IR_OEL
4,4'-Isopropylidenediphenol 80-05-7 [Bisphenol A; 4,4'-Isopropylidenediphenol]		2	Time Weighted Average (TWA):		EU OELIII
m-Phenylenebis(methylamine) 1477-55-0 [M-XYLENE A,A'-DIAMINE (M-PHENYLENEBIS(METHYLAMINE))]		0,1	Time Weighted Average (TWA):		IR_OEL
m-Phenylenebis(methylamine)		0,1	Time Weighted Average		IR_OEL

1477-55-0 [M-XYLENE A,A'-DIAMINE (M- PHENYLENEBIS(METHYLAMINE))]			(TWA):		
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Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine 68082-29-1	aqua (freshwater)		0,004 mg/l				
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine 68082-29-1	Freshwater - intermittent		0,042 mg/l				
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine 68082-29-1	aqua (marine water)		0 mg/l				
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine 68082-29-1	sewage treatment plant (STP)		3,84 mg/l				
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine 68082-29-1	sediment (freshwater)				434,02 mg/kg		
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine 68082-29-1	sediment (marine water)				43,4 mg/kg		
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine 68082-29-1	Soil				86,78 mg/kg		
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine 68082-29-1	Predator						no potential for bioaccumulation
2,2'-iminodiethylamine 111-40-0	aqua (freshwater)		0,56 mg/l				
2,2'-iminodiethylamine 111-40-0	aqua (marine water)		0,056 mg/l				
2,2'-iminodiethylamine 111-40-0	aqua (intermittent releases)		0,32 mg/l				
2,2'-iminodiethylamine 111-40-0	sediment (freshwater)				1072 mg/kg		
2,2'-iminodiethylamine 111-40-0	sediment (marine water)				107,2 mg/kg		
2,2'-iminodiethylamine 111-40-0	sewage treatment plant (STP)		6 mg/l				
2,2'-iminodiethylamine 111-40-0	Soil				7,97 mg/kg		
2,2'-iminodiethylamine 111-40-0	Air						no hazard identified
4,4'-Isopropylidenediphenol 80-05-7	aqua (freshwater)		0,023 mg/l				
4,4'-Isopropylidenediphenol 80-05-7	aqua (marine water)		0,019 mg/l				
4,4'-Isopropylidenediphenol 80-05-7	Freshwater - intermittent		0,011 mg/l				
4,4'-Isopropylidenediphenol 80-05-7	sewage treatment plant (STP)		320 mg/l				
4,4'-Isopropylidenediphenol 80-05-7	sediment (freshwater)				1,2 mg/kg		
4,4'-Isopropylidenediphenol 80-05-7	sediment (marine water)				0,24 mg/kg		
4,4'-Isopropylidenediphenol 80-05-7	Soil				3,7 mg/kg		
4,4'-Isopropylidenediphenol 80-05-7	Air						no hazard identified
4,4'-Isopropylidenediphenol	Predator						no potential for

80-05-7							bioaccumulation
m-Phenylenebis(methylamine) 1477-55-0	aqua (freshwater)		0,094 mg/l				
m-Phenylenebis(methylamine) 1477-55-0	aqua (marine water)		0,009 mg/l				
m-Phenylenebis(methylamine) 1477-55-0	Freshwater - intermittent		0,152 mg/l				
m-Phenylenebis(methylamine) 1477-55-0	sewage treatment plant (STP)		10 mg/l				
m-Phenylenebis(methylamine) 1477-55-0	sediment (freshwater)				12,4 mg/kg		
m-Phenylenebis(methylamine) 1477-55-0	sediment (marine water)				1,24 mg/kg		
m-Phenylenebis(methylamine) 1477-55-0	Soil				2,44 mg/kg		
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	aqua (intermittent releases)		0,2 mg/l				
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	aqua (freshwater)		0,027 mg/l				
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	aqua (marine water)		0,003 mg/l				
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	sediment (freshwater)				8,572 mg/kg		
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	sediment (marine water)				0,857 mg/kg		
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	Soil				1,25 mg/kg		
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	sewage treatment plant (STP)		0,13 mg/l				
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	oral						no potential for bioaccumulation
Phenol, styrenated 61788-44-1	aqua (freshwater)		0,004 mg/l				
Phenol, styrenated 61788-44-1	Freshwater - intermittent		0,046 mg/l				
Phenol, styrenated 61788-44-1	aqua (marine water)		0,0004 mg/l				
Phenol, styrenated 61788-44-1	Marine water - intermittent		0,0046 mg/l				
Phenol, styrenated 61788-44-1	sewage treatment plant (STP)		36,2 mg/l				
Phenol, styrenated 61788-44-1	sediment (freshwater)				0,248 mg/kg		
Phenol, styrenated 61788-44-1	sediment (marine water)				0,0248 mg/kg		
Phenol, styrenated 61788-44-1	Air						no hazard identified
Phenol, styrenated 61788-44-1	Soil				0,0473 mg/kg		
Phenol, styrenated 61788-44-1	Predator						no potential for bioaccumulation
p-toluenesulphonic acid (containing a maximum of 5 % H2SO4) 104-15-4	aqua (freshwater)		0,073 mg/l				
p-toluenesulphonic acid (containing a maximum of 5 % H2SO4) 104-15-4	Freshwater - intermittent		0,73 mg/l				
p-toluenesulphonic acid (containing a maximum of 5 % H2SO4) 104-15-4	aqua (marine water)		0,0073 mg/l				
p-toluenesulphonic acid (containing a maximum of 5 % H2SO4) 104-15-4	sewage treatment plant (STP)		65 mg/l				
p-toluenesulphonic acid (containing a	sediment				0,35 mg/kg		

maximum of 5 % H ₂ SO ₄) 104-15-4	(freshwater)						
p-toluenesulphonic acid (containing a maximum of 5 % H ₂ SO ₄) 104-15-4	sediment (marine water)				0,0035 mg/kg		
p-toluenesulphonic acid (containing a maximum of 5 % H ₂ SO ₄) 104-15-4	Soil				0,028 mg/kg		
p-toluenesulphonic acid (containing a maximum of 5 % H ₂ SO ₄) 104-15-4	Predator						no potential for bioaccumulation

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
2,2'-iminodiethylamine 111-40-0	Workers	dermal	Long term exposure - systemic effects		11,4 mg/kg	no hazard identified
2,2'-iminodiethylamine 111-40-0	Workers	dermal	Long term exposure - local effects		1,1 mg/kg	no hazard identified
2,2'-iminodiethylamine 111-40-0	Workers	Inhalation	Acute/short term exposure - systemic effects		92,1 mg/m3	no hazard identified
2,2'-iminodiethylamine 111-40-0	Workers	Inhalation	Acute/short term exposure - local effects		2,6 mg/m3	no hazard identified
2,2'-iminodiethylamine 111-40-0	Workers	Inhalation	Long term exposure - systemic effects		15,4 mg/m3	no hazard identified
2,2'-iminodiethylamine 111-40-0	Workers	Inhalation	Long term exposure - local effects		0,87 mg/m3	no hazard identified
2,2'-iminodiethylamine 111-40-0	General population	dermal	Acute/short term exposure - systemic effects		4,88 mg/kg	no hazard identified
2,2'-iminodiethylamine 111-40-0	General population	Inhalation	Acute/short term exposure - systemic effects		27,5 mg/m3	no hazard identified
2,2'-iminodiethylamine 111-40-0	General population	dermal	Long term exposure - systemic effects		4,88 mg/kg	no hazard identified
2,2'-iminodiethylamine 111-40-0	General population	Inhalation	Long term exposure - systemic effects		4,6 mg/m3	no hazard identified
4,4'-Isopropylidenediphenol 80-05-7	Workers	dermal	Acute/short term exposure - systemic effects		0,031 mg/kg	no hazard identified
4,4'-Isopropylidenediphenol 80-05-7	Workers	dermal	Long term exposure - systemic effects		0,031 mg/kg	no hazard identified
4,4'-Isopropylidenediphenol 80-05-7	Workers	Inhalation	Acute/short term exposure - systemic effects		2 mg/m3	no hazard identified
4,4'-Isopropylidenediphenol 80-05-7	Workers	Inhalation	Long term exposure - systemic effects		2 mg/m3	no hazard identified
4,4'-Isopropylidenediphenol 80-05-7	General population	dermal	Long term exposure - systemic effects		0,002 mg/kg	no hazard identified
4,4'-Isopropylidenediphenol 80-05-7	General population	Inhalation	Long term exposure - systemic effects		1 mg/m3	no hazard identified
4,4'-Isopropylidenediphenol 80-05-7	Workers	inhalation	Long term exposure - local effects		2 mg/m3	no hazard identified
4,4'-Isopropylidenediphenol 80-05-7	Workers	inhalation	Acute/short term exposure - local effects		2 mg/m3	no hazard identified
4,4'-Isopropylidenediphenol 80-05-7	General population	inhalation	Acute/short term exposure - systemic effects		1 mg/m3	no hazard identified
4,4'-Isopropylidenediphenol 80-05-7	General population	inhalation	Long term exposure - local effects		1 mg/m3	no hazard identified
4,4'-Isopropylidenediphenol 80-05-7	General population	inhalation	Acute/short term exposure - local effects		1 mg/m3	no hazard identified
4,4'-Isopropylidenediphenol 80-05-7	General population	dermal	Acute/short term exposure - systemic effects		0,002 mg/kg	no hazard identified
4,4'-Isopropylidenediphenol 80-05-7	General population	oral	Long term exposure - systemic effects		0,004 mg/kg	no hazard identified

4,4'-Isopropylidenediphenol 80-05-7	General population	oral	Acute/short term exposure - systemic effects		0,004 mg/kg	no hazard identified
m-Phenylenebis(methylamine) 1477-55-0	Workers	dermal	Long term exposure - systemic effects		0,33 mg/kg	
m-Phenylenebis(methylamine) 1477-55-0	Workers	inhalation	Long term exposure - systemic effects		1,2 mg/m3	
m-Phenylenebis(methylamine) 1477-55-0	Workers	inhalation	Long term exposure - local effects		0,2 mg/m3	
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	Workers	Inhalation	Long term exposure - systemic effects		0,54 mg/m3	no potential for bioaccumulation
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	General population	Inhalation	Long term exposure - systemic effects		0,096 mg/m3	no potential for bioaccumulation
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	General population	oral	Long term exposure - systemic effects		0,14 mg/kg	no potential for bioaccumulation
Phenol, styrenated 61788-44-1	Workers	dermal	Long term exposure - systemic effects		2,1 mg/kg	no hazard identified
Phenol, styrenated 61788-44-1	Workers	inhalation	Long term exposure - systemic effects		7,4 mg/m3	no hazard identified
Phenol, styrenated 61788-44-1	General population	inhalation	Long term exposure - systemic effects		1,31 mg/m3	no hazard identified
Phenol, styrenated 61788-44-1	General population	dermal	Long term exposure - systemic effects		0,75 mg/kg	no hazard identified
Phenol, styrenated 61788-44-1	General population	oral	Long term exposure - systemic effects		0,75 mg/kg	no hazard identified
p-toluenesulphonic acid (containing a maximum of 5 % H2SO4) 104-15-4	Workers	dermal	Long term exposure - systemic effects		7,6 mg/kg	no potential for bioaccumulation
p-toluenesulphonic acid (containing a maximum of 5 % H2SO4) 104-15-4	Workers	inhalation	Long term exposure - systemic effects		53,6 mg/m3	no potential for bioaccumulation
p-toluenesulphonic acid (containing a maximum of 5 % H2SO4) 104-15-4	General population	oral	Long term exposure - systemic effects		2,5 mg/kg	no potential for bioaccumulation
p-toluenesulphonic acid (containing a maximum of 5 % H2SO4) 104-15-4	General population	dermal	Long term exposure - systemic effects		2,5 mg/kg	no potential for bioaccumulation
p-toluenesulphonic acid (containing a maximum of 5 % H2SO4) 104-15-4	General population	inhalation	Long term exposure - systemic effects		8,7 mg/m3	no potential for bioaccumulation

Biological Exposure Indices:

None

8.2. Exposure controls:

Engineering controls:

Ensure good ventilation/extraction.

Respiratory protection:

Ensure adequate ventilation.

An approved mask or respirator fitted with an organic vapour cartridge should be worn if the product is used in a poorly ventilated area

Filter type: A (EN 14387)

Hand protection:

Chemical-resistant protective gloves (EN 374).

Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374):

nitrile rubber (NBR; ≥ 0.4 mm thickness)

Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374):

nitrile rubber (NBR; ≥ 0.4 mm thickness)

This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection:

Safety glasses with sideshields or chemical safety goggles should be worn if there is a risk of splashing.

Protective eye equipment should conform to EN166.

Skin protection:

Wear suitable protective clothing.

Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Advices to personal protection equipment:

The information provided on personal protective equipment is for guidance purposes only. A full risk assessment should be conducted prior to using this product to determine the appropriate personal protective equipment to suit local conditions.

Personal protective equipment should conform to the relevant EN standard.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Delivery form	liquid
Colour	Beige
Odor	amine-like
Physical state	liquid
Melting point	Not applicable, Product is a liquid
Solidification temperature	$< 5\text{ }^{\circ}\text{C}$ ($< 41\text{ }^{\circ}\text{F}$)
Initial boiling point	$> 180\text{ }^{\circ}\text{C}$ ($> 356\text{ }^{\circ}\text{F}$)
Flammability	The product is not flammable.
Explosive limits	Not applicable, The product is not flammable.
Flash point	$> 110\text{ }^{\circ}\text{C}$ ($> 230\text{ }^{\circ}\text{F}$)
Auto-ignition temperature	$> 140\text{ }^{\circ}\text{C}$ ($> 284\text{ }^{\circ}\text{F}$)
Decomposition temperature	Not applicable, Substance/mixture is not self-reactive, no organic peroxide and does not decompose under foreseen conditions of use
pH	9 - 11 calculated
(25 °C (77 °F); Conc.: 100 % product; Solvent: Water)	
Viscosity (kinematic)	85.000 mm ² /s
(40 °C (104 °F);)	
Viscosity, dynamic	75.000 - 95.000 mPa.s LCT STM 738; Rheological Data from flow curves
()	
Solubility (qualitative)	Partially soluble
(20 °C (68 °F); Solvent: Water)	
Partition coefficient: n-octanol/water	Not applicable
Vapour pressure	Mixture
(50 °C (122 °F))	0,04 mbar
Vapour pressure	
(21,1 °C (70 °F))	$< 6,78\text{ hPa}$
Density	0,95 - 1 g/cm ³ None
(20 °C (68 °F))	
Relative vapour density:	> 1
(20 °C)	
Particle characteristics	Not applicable
	Product is a liquid

9.2. Other information

Other information not applicable for this product

SECTION 10: Stability and reactivity**10.1. Reactivity**

Reacts with strong oxidants.

Reaction with strong acids.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity

10.4. Conditions to avoid

Stable under normal conditions of storage and use.

10.5. Incompatible materials

See section reactivity.

10.6. Hazardous decomposition products

carbon oxides.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute oral toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Species	Method
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine 68082-29-1	LD50	> 2.000 mg/kg	rat	OECD Guideline 423 (Acute Oral toxicity)
Diethylenetriamine 111-40-0	LD50	1.553 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
4,4'-Isopropylidenediphenol 80-05-7	LD50	> 2.000 - < 5.000 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)
4,4'-Isopropylidenediphenol 80-05-7	Acute toxicity estimate (ATE)	2.500 mg/kg		Expert judgement
m-Phenylenebis(methylamine) 1477-55-0	LD50	930 mg/kg	rat	equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity)
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	LD50	1.716 mg/kg	rat	equivalent or similar to OECD Guideline 401 (Acute Oral Toxicity)
Phenol, styrenated 61788-44-1	LD50	> 2.000 mg/kg	rat	OECD Guideline 423 (Acute Oral toxicity)
p-toluenesulphonic acid (containing a maximum of 5 % H2SO4) 104-15-4	LD50	1.410 mg/kg	rat	OECD Guideline 401 (Acute Oral Toxicity)

Acute dermal toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Species	Method
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine 68082-29-1	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)
Diethylenetriamine 111-40-0	LD50	1.045 mg/kg	rabbit	not specified
4,4'-Isopropylidenediphenol 80-05-7	LD50	3.000 mg/kg	rabbit	not specified
m-Phenylenebis(methylamine) 1477-55-0	LD50	> 3.100 mg/kg	rat	not specified
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	LD50	1.465 mg/kg	rabbit	OECD Guideline 402 (Acute Dermal Toxicity)
Phenol, styrenated 61788-44-1	LD50	> 2.000 mg/kg	rat	OECD Guideline 402 (Acute Dermal Toxicity)

Acute inhalative toxicity:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Test atmosphere	Exposure time	Species	Method
Diethylenetriamine 111-40-0	LD 50	> 0,07 - < 0,30 mg/l		4 h	rat	OECD Guideline 403 (Acute Inhalation Toxicity)
Diethylenetriamine 111-40-0	Acute toxicity estimate (ATE)	0,071 mg/l	dust/mist			Expert judgement
m- Phenylenebis(methylamin e) 1477-55-0	LC50	1,34 mg/l	dust/mist	4 h	rat	OECD Guideline 403 (Acute Inhalation Toxicity)

Skin corrosion/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine 68082-29-1	irritating or corrosive		Human, EpiDerm™ SIT (EPI-200), Reconstructed Human Epidermis (RHE)	OECD Guideline 439 (In Vitro Skin Irritation: Reconstructed Human Epidermis (RHE) Test Method)
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine 68082-29-1	not corrosive		Human, in vitro skin model	OECD Guideline 431 (In Vitro Skin Corrosion: Reconstructed Human Epidermis (RHE) Test Method)
Diethylenetriamine 111-40-0	corrosive	15 min	rabbit	BASF Test
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	corrosive		rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Phenol, styrenated 61788-44-1	irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
p-toluenesulphonic acid (containing a maximum of 5 % H ₂ SO ₄) 104-15-4	corrosive	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious eye damage/irritation:

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Exposure time	Species	Method
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine 68082-29-1	corrosive		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Diethylenetriamine 111-40-0	corrosive	30 s	rabbit	not specified
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	Category 1 (irreversible effects on the eye)		rabbit	equivalent or similar to OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Phenol, styrenated 61788-44-1	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Test type	Species	Method
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine 68082-29-1	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine 68082-29-1	sensitising	Guinea pig maximisation test	guinea pig	equivalent or similar to OECD Guideline 406 (Skin Sensitisation)
Diethylenetriamine 111-40-0	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
4,4'-Isopropylidenediphenol 80-05-7	not sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 406 (Skin Sensitisation)
m-Phenylenebis(methylamine) 1477-55-0	Sub-Category 1B (sensitising)	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	Sensitizing	Buehler test	guinea pig	equivalent or similar to OECD Guideline 406 (Skin Sensitisation)
Phenol, styrenated 61788-44-1	sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
p-toluenesulphonic acid (containing a maximum of 5 % H ₂ SO ₄) 104-15-4	not sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)

Germ cell mutagenicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Diethylenetriamine 111-40-0	positive	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Diethylenetriamine 111-40-0	negative	in vitro mammalian chromosome aberration test	with and without		Chromosome Aberration Test
4,4'- Isopropylidenediphenol 80-05-7	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		not specified
m- Phenylenebis(methylamin e) 1477-55-0	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		not specified
m- Phenylenebis(methylamin e) 1477-55-0	negative	in vitro mammalian chromosome aberration test	with and without		not specified
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	positive	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	negative	in vitro mammalian cell micronucleus test	with and without		OECD Guideline 487 (In vitro Mammalian Cell Micronucleus Test)
Phenol, styrenated 61788-44-1	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Phenol, styrenated 61788-44-1	negative	mammalian cell gene mutation assay	with and without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
p-toluenesulphonic acid (containing a maximum of 5 % H ₂ SO ₄) 104-15-4	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Diethylenetriamine 111-40-0	negative	oral: gavage		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Diethylenetriamine 111-40-0	negative	oral: gavage		mouse	not specified
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	negative	intraperitoneal		mouse	equivalent or similar to OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
Phenol, styrenated 61788-44-1	negative	oral: gavage		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)

Carcinogenicity

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Sex	Method
Diethylenetriamine 111-40-0	not carcinogenic	dermal	lifetime (appr. 587 d) 3 d/w	mouse	male	OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	not carcinogenic	dermal	lifetime three times/w	mouse	male	equivalent or similar OECD Guideline 451 (Carcinogenicity Studies)

Reproductive toxicity:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Test type	Route of application	Species	Method
Diethylenetriamine 111-40-0	NOAEL P 100 mg/kg NOAEL F1 30 mg/kg	screening	oral: gavage	rat	OECD Guideline 421 (Reproduction / Developmental Toxicity Screening Test)
4,4'- Isopropylidenediphenol 80-05-7	NOAEL P 300 ppm		oral: feed	mouse	OECD Guideline 416 (Two- Generation Reproduction Toxicity Study)

STOT-single exposure:

No data available.

STOT-repeated exposure:

The mixture is classified based on threshold limits referring to the classified substances present in the mixture.

Hazardous substances CAS-No.	Result / Value	Route of application	Exposure time / Frequency of treatment	Species	Method
Diethylenetriamine 111-40-0	NOAEL 70 - 80 mg/kg	oral: feed	90 d daily	rat	not specified
Diethylenetriamine 111-40-0	NOAEL 0,55 mg/l	inhalation: vapour	15 d 6 h/d	rat	not specified
m- Phenylenebis(methylamin e) 1477-55-0	LOAEL >= 600 mg/kg	oral: gavage	28 days daily	rat	Guidelines for 28-Day Repeat Dose Toxicity Test (Japan)
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	LOAEL 50 mg/kg	oral: gavage	26 w daily	rat	equivalent or similar to OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Phenol, styrenated 61788-44-1	NOAEL 97 mg/kg	oral: feed	28 d daily	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)

Aspiration hazard:

No data available.

11.2 Information on other hazards

not applicable

SECTION 12: Ecological information

General ecological information:

Do not empty into drains / surface water / ground water.

12.1. Toxicity

Toxicity (Fish):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine 68082-29-1	LC50	7,07 mg/l	96 h	Danio rerio	OECD Guideline 203 (Fish, Acute Toxicity Test)
Diethylenetriamine 111-40-0	LC50	430 mg/l	96 h	Poecilia reticulata	EU Method C.1 (Acute Toxicity for Fish)
Diethylenetriamine 111-40-0	NOEC	> 10 mg/l	28 d	Gasterosteus aculeatus	OECD Guideline 210 (fish early life stage toxicity test)
4,4'-Isopropylidenediphenol 80-05-7	LC50	4,6 mg/l	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
4,4'-Isopropylidenediphenol 80-05-7	LOEC	0,000372 mg/l	300 d	Danio rerio	OECD Guideline 234 (Fish Sexual Development Test)
m-Phenylenebis(methylamine) 1477-55-0	LC50	87,6 mg/l	96 h	Oryzias latipes	OECD Guideline 203 (Fish, Acute Toxicity Test)
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	LC50	330 mg/l	96 h	Pimephales promelas	other guideline:
Phenol, styrenated 61788-44-1	LC50	3,2 mg/l	96 h	Brachydanio rerio (new name: Danio rerio)	OECD Guideline 203 (Fish, Acute Toxicity Test)
p-toluenesulphonic acid (containing a maximum of 5 % H ₂ SO ₄) 104-15-4	LC50	> 500 mg/l	96 h	Leuciscus idus melanotus	OECD Guideline 203 (Fish, Acute Toxicity Test)

Toxicity (aquatic invertebrates):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine 68082-29-1	EC50	7,07 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Diethylenetriamine 111-40-0	EC50	64,6 mg/l	48 h	Daphnia magna	EU Method C.2 (Acute Toxicity for Daphnia)
4,4'-Isopropylidenediphenol 80-05-7	EC50	0,885 mg/l	48 h	Acartia clausi	other guideline:
m-Phenylenebis(methylamine) 1477-55-0	EC50	15,2 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	EC50	31 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Phenol, styrenated 61788-44-1	EC50	> 1 - 10 mg/l	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
p-toluenesulphonic acid (containing a maximum of 5 % H ₂ SO ₄) 104-15-4	EC50	> 1.500 mg/l	24 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

Chronic toxicity (aquatic invertebrates):

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Diethylenetriamine 111-40-0	NOEC	5,6 mg/l	21 d	Daphnia magna	EU Method C.20 (Daphnia magna Reproduction Test)
4,4'-Isopropylidenediphenol 80-05-7	LOEC	0,00025 mg/l	150 d	Marisa cornuarietis	other guideline:
m-Phenylenebis(methylamine) 1477-55-0	NOEC	4,7 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	EC10	1,9 mg/l	21 day	Daphnia magna	OECD Guideline 202 (Daphnia sp. Chronic Immobilisation Test)
Phenol, styrenated 61788-44-1	NOEC	0,115 mg/l	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)

Toxicity (Algae):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine 68082-29-1	EC50	4,34 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine 68082-29-1	NOEC	0,5 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
Diethylenetriamine 111-40-0	EC50	1.164 mg/l	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Diethylenetriamine 111-40-0	NOEC	10 mg/l	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
4,4'-Isopropylidenediphenol 80-05-7	EC50	3,73 mg/l	96 h	other:	OECD Guideline 201 (Alga, Growth Inhibition Test)
4,4'-Isopropylidenediphenol 80-05-7	EC10	2,1 mg/l	72 h	Raphidocelis subcapitata (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
m-Phenylenebis(methylamine) 1477-55-0	EC50	33,3 mg/l	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
m-Phenylenebis(methylamine) 1477-55-0	NOEC	22,9 mg/l	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	EC50	20 mg/l	72 h	Selenastrum capricornutum (new name: Pseudokirchneriella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	EC10	1,34 mg/l	72 h	Pseudokirchneriella subcapitata (reported as Raphidocelis subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Phenol, styrenated 61788-44-1	EC50	3,14 mg/l	72 h	not specified	OECD Guideline 201 (Alga, Growth Inhibition Test)
p-toluenesulphonic acid (containing a maximum of 5 % H ₂ SO ₄) 104-15-4	EC50	73 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)
p-toluenesulphonic acid (containing a maximum of 5 % H ₂ SO ₄) 104-15-4	NOEC	44,8 mg/l	72 h	Pseudokirchneriella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test)

Toxicity (microorganisms):

The mixture is classified based on calculation method referring to the classified substances present in the mixture.

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Value type	Value	Exposure time	Species	Method
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine 68082-29-1	EC10	130 mg/l	3 h	activated sludge of a predominantly domestic sewage	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
Diethylenetriamine 111-40-0	NOEC	6 mg/l	3 h	anaerobic bacteria	not specified
4,4'-Isopropylidenediphenol 80-05-7	EC10	> 320 mg/l	18 h	Pseudomonas putida	DIN 38412, part 8 (Pseudomonas Zellvermehrungshemm-Test)
m-Phenylenebis(methylamine) 1477-55-0	EC50	> 1.000 mg/l	30 min	activated sludge	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
Phenol, styrenated 61788-44-1	EC50	362 mg/l	3 h	not specified	ISO 8192 (Test for Inhibition of Oxygen)

					Consumption by Activated Sludge)
p-toluenesulphonic acid (containing a maximum of 5 % H ₂ SO ₄) 104-15-4	EC10	240 mg/l	3 h	activated sludge of a predominantly domestic sewage	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)

12.2. Persistence and degradability

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Result	Test type	Degradability	Exposure time	Method
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine 68082-29-1	not readily biodegradable.	no data	> 0 - < 60 %	28 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Diethylenetriamine 111-40-0	inherently biodegradable	aerobic	83 %	28 d	EU Method C.9 (Biodegradation: Zahn-Wellens Test)
Diethylenetriamine 111-40-0	readily biodegradable	aerobic	87 %	21 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
4,4'-Isopropylidenediphenol 80-05-7	readily biodegradable	aerobic	89 %	28 d	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
m-Phenylenebis(methylamine) 1477-55-0	not readily biodegradable.	aerobic	49 %	28 d	OECD Guideline 301 B (Ready Biodegradability: CO ₂ Evolution Test)
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	not readily biodegradable.	aerobic	0 %	162 d	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	not inherently biodegradable	aerobic	20 %	84 d	OECD Guideline 302 A (Inherent Biodegradability: Modified SCAS Test)
Phenol, styrenated 61788-44-1	not readily biodegradable.	aerobic	7 %	28 d	OECD Guideline 301 B (Ready Biodegradability: CO ₂ Evolution Test)
p-toluenesulphonic acid (containing a maximum of 5 % H ₂ SO ₄) 104-15-4	inherently biodegradable	aerobic	94 %	20 d	OECD Guideline 302 B (Inherent biodegradability: Zahn-Wellens/EMPA Test)
p-toluenesulphonic acid (containing a maximum of 5 % H ₂ SO ₄) 104-15-4	readily biodegradable	aerobic	79 - 80 %	28 d	OECD 301 A - F

12.3. Bioaccumulative potential

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	Bioconcentration factor (BCF)	Exposure time	Temperature	Species	Method
Diethylenetriamine 111-40-0	> 0,3 - < 6,3	42 d		Cyprinus carpio	OECD Guideline 305 C (Bioaccumulation: Test for the Degree of Bioconcentration in Fish)
4,4'-Isopropylidenediphenol 80-05-7	5,1 - 67	42 d	25 °C	Cyprinus carpio	other guideline:

12.4. Mobility in soil

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	LogPow	Temperature	Method
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine 68082-29-1	10,34		QSAR (Quantitative Structure Activity Relationship)
Diethylenetriamine 111-40-0	-1,58	20 °C	QSAR (Quantitative Structure Activity Relationship)
4,4'-Isopropylidenediphenol 80-05-7	3,4	21,5 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
m-Phenylenebis(methylamine) 1477-55-0	0,18	25 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	-2,65		OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
p-toluenesulphonic acid (containing a maximum of 5 % H ₂ SO ₄) 104-15-4	-0,96	50 °C	EU Method A.8 (Partition Coefficient)

12.5. Results of PBT and vPvB assessment

The table below presents the data of the classified substances present in the mixture.

Hazardous substances CAS-No.	PBT / vPvB
Fatty acids, C18-unsatd., dimers, oligomeric reaction products with tall-oil fatty acids and triethylenetetramine 68082-29-1	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Diethylenetriamine 111-40-0	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
4,4'-Isopropylidenediphenol 80-05-7	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
m-Phenylenebis(methylamine) 1477-55-0	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Amines, polyethylenepoly-, triethylenetetramine fraction 90640-67-8	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Phenol, styrenated 61788-44-1	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
p-toluenesulphonic acid (containing a maximum of 5 % H ₂ SO ₄) 104-15-4	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

12.6. Endocrine disrupting properties

not applicable

12.7. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product disposal:

Do not empty into drains / surface water / ground water.

Dispose of in accordance with local and national regulations.

Disposal of uncleaned packages:

After use, tubes, cartons and bottles containing residual product should be disposed of as chemically contaminated waste in an authorised legal land fill site or incinerated.

Waste code

08 04 09* waste adhesives and sealants containing organic solvents and other dangerous substances

The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.

SECTION 14: Transport information**14.1. UN number or ID number**

ADR	2735
RID	2735
ADN	2735
IMDG	2735
IATA	2735

14.2. UN proper shipping name

ADR	AMINES, LIQUID, CORROSIVE, N.O.S. (Modified Amine Adduct,Diethylenetriamine)
RID	AMINES, LIQUID, CORROSIVE, N.O.S. (Modified Amine Adduct,Diethylenetriamine)
ADN	AMINES, LIQUID, CORROSIVE, N.O.S. (Modified Amine Adduct,Diethylenetriamine)
IMDG	AMINES, LIQUID, CORROSIVE, N.O.S. (Modified Amine Adduct,Diethylenetriamine,dimer fatty acid(C18)poly amido amine resin)
IATA	Amines, liquid, corrosive, n.o.s. (Modified Amine Adduct,Diethylenetriamine)

14.3. Transport hazard class(es)

ADR	8
RID	8
ADN	8
IMDG	8
IATA	8

14.4. Packing group

ADR	II
RID	II
ADN	II
IMDG	II
IATA	II

14.5. Environmental hazards

ADR	Environmentally Hazardous
RID	Environmentally Hazardous
ADN	Environmentally Hazardous
IMDG	Marine Pollutant
IATA	not applicable

14.6. Special precautions for user

ADR	not applicable
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	Tunnelcode: (E)
RID	not applicable
ADN	not applicable
IMDG	not applicable
IATA	not applicable

14.7. Maritime transport in bulk according to IMO instruments

not applicable

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Ozone Depleting Substance (ODS) (Regulation (EC) No 1005/2009):	Not applicable
Prior Informed Consent (PIC) (Regulation (EU) No 649/2012):	Not applicable
Persistent organic pollutants (Regulation (EU) 2019/1021):	Not applicable

VOC content < 3,00 % Combined A/B
(2010/75/EC)

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text of all abbreviations indicated by codes in this safety data sheet are as follows:

H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H330 Fatal if inhaled.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H360F May damage fertility.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.

ED:	Substance identified as having endocrine disrupting properties
EU OEL:	Substance with a Union workplace exposure limit
EU EXPLD 1:	Substance listed in Annex I, Reg (EC) No. 2019/1148
EU EXPLD 2	Substance listed in Annex II, Reg (EC) No. 2019/1148
SVHC:	Substance of very high concern (REACH Candidate List)
PBT:	Substance fulfilling persistent, bioaccumulative and toxic criteria
PBT/vPvB:	Substance fulfilling persistent, bioaccumulative and toxic plus very persistent and very bioaccumulative criteria
vPvB:	Substance fulfilling very persistent and very bioaccumulative criteria

Further information:

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